ABSTRACT

[0040] The invention enhances ultrasonic visualization of a medical device by coating the surface of the medical device with a contrast agent preferably comprising microbubbles. The contrast agent responds to incident ultrasound waves to generate vibrations at a harmonic frequency (i.e., a harmonic of the frequency of the incident wave), non-harmonic vibrations or a combination of harmonic and non-harmonic vibrations. In one embodiment, the microbubbles are coated on the medical device using an intermediate adhesion layer that adheres to the surface of the device. In a second embodiment, the microbubbles are incorporated in the adhesion layer.